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# 10 COURSE H – EXAMINATION OF TYPEWRITERS AND PRINTOUT DEVICES

# **10.1** Scope

- 10.1.1 The History of Typewriters (approximately 25 hours)
- 10.1.2 Theory of Typewriter Identification (approximately 43 hours)
- 10.1.3 Type Font Identification (approximately 40 hours)
- 10.1.4 The Examination Process (approximately 182 hours)
- 10.1.5 Ribbon Examination (approximately 62 hours)
- 10.1.6 Examination/PE (approximately 8 hours)

# 10.2 Objective

To provide an overview of the history of typewriters and the principles of the examination and identification of typewriters and printers

### 10.3 Methods of Instruction

Self-directed, practicals, demonstration, lecture

# 10.4 References

- 10.4.1 The History of Typewriters
  - Bliven, B., <u>The Wonderful Writing Machine</u>, Random House, NY, 1954, (review all)
  - Masi, Frank, <u>The Typewriter Legend</u>, Matsushita Electronic Corporation of America, NJ, 1985, pp 12-42
  - Technical articles (as assigned)

# 10.4.2 Theory of Typewriter Identification

- Conway, J.V.P., Evidential Documents, Charles C. Thomas Publisher, 1959, pp 109-138
- Harrison, W.R., Forgery Detection, Frederick A. Praeger, NY, 1964, Chap 11 and pp 181-184
- Harrison, W.R., Suspect Documents, Frederick A. Praeger, NY, 1958, pp 22, 42, 50-52, 98, 237-287
- Hilton, O., <u>Scientific Examination of Questioned Documents</u>, Elsevier Inc., NY, 1982, pp 22-24, 46-66, Chap 11,15
- Hutchinson, H., The Typewriter Repair Manual, Tab Books, Inc., 1981, Chap 1-3
- Osborn, A.S., Problem of Proof, The Essex Press, NJ, 1926, Chap 25
- Osborn, A.S., Questioned Documents, Boyd Printing Co., Albany, NY, 2<sup>nd</sup> Edition, 1929, Chap 32
- Osborn, A.S. & A.D., <u>Questioned Document Problems</u>, Boyd Printing Co., Albany, NY, 2<sup>nd</sup> Edition, 1946, Chap 18-20
- Lundquist, Frank, <u>Methods of Forensic Science</u>, Vol. 2, Interscience Publishers, London, 1963, pp 79-126
- Ellen, David, <u>The Scientific Examination of Documents: Methods and Techniques</u>, Taylor and Francis, Ltd, 1997, Chap 6
- Technical articles (as assigned)

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- 10.4.3 Type Font Identification
  - Technical articles (as assigned)
- 10.4.4 The Examination Process
  - Technical articles (as assigned)
- 10.4.5 Ribbon Examination
  - Technical articles (as assigned)

### 10.5 Standards

- 10.5.1 The Student must be able to explain the history and current trends of the typewriter and various types of printers.
- 10.5.2 The student must be able to explain the various types of typewriters/printers, their nomenclature, basic mechanics, effects of computer hardware/software, effects of multi-font capabilities and differences involved in their examination.
- 10.5.3 The student must be able to explain typewriter classification systems, and how manufacture and sale of typewriters and component parts aeffect these systems.
- 10.5.4 The student must be able to explain the theory of typewriter/printer identification, what constitutes adequate standards, characteristics that indicate a certain class of typewriter/printer, what constitutes an individual characteristic, and what constitutes sufficient characteristics to warrant an identification or an elimination of a specific machine.
- 10.5.5 The student must be able to explain the process of type font identification.
- 10.5.6 The student must be able to explain and demonstrate the use of typewriter test grids.
- 10.5.7 The student must be able to explain the various types of typewriter ribbons, the forensic value of typewriter ribbons, how to differentiate types of ribbons on a typed document, the use of RAW-1 (if available) in ribbon examinations, the use of polarized light microscope in ribbon examinations, and how a ribbon can be matched to questioned text.
- 10.5.8 The student must be able to conduct examinations of typescript to:
  - 10.5.8.1 Identify the preparing machine or element
  - 10.5.8.2 Identify the type font of a text
  - 10.5.8.3 Determine the spacing measurements of a text
  - 10.5.8.4 Detect misaligned text
- 10.5.9 The student must be able to conduct examinations of typewriter ribbons to:
  - 10.5.9.1 Decipher the text of typescript on carbon film ribbons
  - 10.5.9.2 Explain how typewriter ribbons can be matched to questioned typescript, and identify the ribbon as the source of a questioned text

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10.5.9.3 Operate the RAW-1 (if available)

# 10.6 Verification

- 10.6.1 Student must score at least 80 on a written test.
- 10.6.2 Student must complete a practical exercise (to the instructor's satisfaction) demonstrating the ability to:
  - 10.6.2.1 Identify a typewriter or element as the source of a questioned text
  - 10.6.2.2 Use the INTERPOL classification system and Haas Atlas to identify possible sources for a questioned type font.
  - 10.6.2.3 Identify a carbon film ribbon as the source of a questioned typewritten text.
- 10.6.3 Student must prepare and present a one-hour class on typewriter examination using any additional guidelines provided by the instructor.
- 10.6.4 Student will have 360 hours to complete Course H.

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